

REMARKS

The forgoing amendment amends claims 1, 3 and 5, and cancels claims 2 and 6. Now pending in the application are claims 1, 3-5 and 7-13, of which claims 1 and 5 are independent. The following comments address all stated grounds for rejection and place the presently pending claims, as identified above, in condition for allowance.

Claim Amendments

Applicants amend claims 1 and 5 to incorporate the limitations recited in claims 2 and 6, respectively. Claim 3 is amended to depend from claim 1. No new matter is added.

Rejection of Claims 1-13 under 35 U.S.C. §103

Claims 1-13 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,649,097 ("Sasaki") in view of U.S. Patent No. 3,619,458 ("Engelhardt"). Applicants respectfully traverse the rejection for the following reasons.

The claimed invention is directed to a method for fabricating a seal-integrated separator for a fuel cell in which seals integrated on both sides of a separator body. An upper mold is provided that includes a first groove positioned corresponding to the seal disposed on one side of the separator body, and at least one gate. A lower mold is also provided that includes a second groove positioned corresponding to the seal disposed on the other side of the separator body, and at least one gate. The first groove is separate from the second groove. The melted seal material is injected into each of the grooves in the upper mold and the lower mold through the gates respectively formed in the upper and lower molds.

In the claimed invention, the gate formed in one of the upper and lower molds communicates with the gate formed in the other of said molds *via mating surfaces of the molds* by a runner branching from the gate formed in the other of the molds. In an embodiment of the claimed invention depicted with reference to Fig. 6 of the pending application, the gate formed

in one of the upper and lower molds communicates with the gate formed in the other of the molds via the mating surfaces (200).

With the method of the claimed invention, the seals are simultaneously integrated on both sides of the separator body and the seal-integrated separator can be fabricated through a single process. Additionally, the seals can be accurately positioned and the assembling time of the fuel cell units is greatly reduced. In particular, by using the upper and lower molds of the claimed invention, only a single injection is required to simultaneously form the seals on both sides of the separator body, and hence can reduce production cost.

Applicants submit that Sasaki and Engelhardt, in combination, do not teach that *the gate formed in one of the upper and lower molds communicates with the gate formed in the other of said molds via mating surfaces of the molds by a runner branching from the gate formed in the other of the molds*, as recited in claims 1 and 5.

Sasaki teaches in Fig. 4 a cavity (39) provided between the intermediate die (29) and the lower die (30). Sasaki also teaches in Figs. 5 and 6 that sealing material is supplied into the groove (40a), then supplied into the groove (40b) via the hole (40c) to form gaskets (7, 8). The Sasaki reference, however, does not teach that the gate formed in one of the upper and lower molds communicates with the gate formed in the other of said molds *via mating surfaces of the molds* by a runner branching from the gate formed in the other of the molds, as recited in the claimed invention.

Engelhardt teaches a method for providing an apertured gasket support with a ring of sealing material encircling the aperture. Engelhardt also teaches that elastomer moves from the cylinders (11, 12) into the space (7) in Fig. 3. Engelhardt, however, does not teach that the gate formed in one of the upper and lower molds communicates with the gate formed in the other of said molds *via mating surfaces of the molds* by a runner branching from the gate formed in the other of the molds, as recited in the claimed invention.

In light of the foregoing arguments, Applicants submit that Sasaki and Engelhardt, in combination, do not teach or suggest all of the limitations of claims 1 and 5. Claims 3-4 and 7-

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13, which depend upon one of claims 1 and 6, are not rendered obvious over the cited references. Applicants therefore request the Examiner to reconsider and withdraw the rejection of claims 1-13 under 35 U.S.C. §103(a), and pass the claim to allowance.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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